WHAT IS CLAIMED IS:

1. Dehydroxylated aluminium silicate-based material, characterized in that the amount of reacted calcium hydroxide, measured by the pozzolanic reactivity (PR) after a 3-day cure is at least 50%.

2. Dehydroxylated aluminium silicate-based material according to claim 1, characterized in that the amount of reacted calcium hydroxide, measured by the pozzolanic reactivity (PR) after a 3-day cure is at least 60%.

3. Dehydroxylated aluminium silicate based material according to claim 1 or 2, characterized in that the amount of reacted calcium hydroxide, measured by the pozzolanic reactivity (PR) after a 7-day cure is at least 92%.

4. Dehydroxylated aluminium silicate based material according to any of claims 1 to 3, characterized in that the amount of reacted calcium hydroxide mesured by the pozzolanic reactivity (PR) after a 7-day cure is at 94%.

5. Dehydroxylated aluminium silicate based material according to any of the preceding claims, characterized it is obtained from a dehydroxylation treatment of aluminium silicate, in which particles containing aluminium silicate are exposed to a temperature of at least 500°C, wherein the particles are in the form of a dry powder, and the dry powder (26) is transported in a gas stream (30) at a temperature ranging from 600 to 850°C, for a time which is sufficient to achieve the desired degree of dehydroxylation.

6. Process for dehydroxylation treatment of aluminium silicate, in which particles containing aluminium silicate are exposed to a temperature of at least 500°C, characterised in that the particles are in the form of a dry powder, and in that the dry powder (26) is transported in a gas stream (30) at a temperature ranging from 600 to 850°C, for a time which is sufficient to achieve the desired degree of dehydroxylation.

7. Process according to Claim 6, characterised in that the powder is formed from a hydrated base paste containing aluminium silicate, in the following way:

- the base paste is reduced into fragments (23),
- the fragments (23) of base paste are disaggregated by mechanical action (at 3) in the presence of a hot gas (24) at a temperature ranging from 500°C to 800°C, in order to form the dry powder (26).

8. Process according to Claim 7, characterised in that the base paste has a water content of less than 30% by weight, and in that the dry powder has a residual water content ranging from 0 to 1 % by weight.

9. Process according to any one of claims 6 or 8, characterised in that the dry powder has a particle size of less than or equal to 100 µm, preferably less than or equal to 80 µm.

10. Process according to any one of Claims 7 to 9, characterised in that the disaggregation is carried out by forcing the fragments (23) of paste and the hot gas (24) between grinding components (18, 21, 22).

11. Process according to any one of Claims 7 to 10, characterised in that the disaggregation step is followed by a step of separating coarse particles (at 4), after which the dry powder is recovered.

12. Process according to any one of claims 6 to 11, characterised in that the dry powder is stored (at 5) before transporting it (at 6) in the hot gas stream.

13. Process according to any one of claims 6 to 12, characterised in that the temperature of the hot gas is controlled during the transport of the dry powder.

14. Process according to Claim 13, characterised in that the temperature of the hot gas is kept substantially constant during the transport of the dry powder.

15. Process according to any one of claims 6 to 14, characterised in that the dehydroxylated dry powder is recovered by filtration after cooling.

16. Process according to any one of claims 6 to 15, characterised in that the treated dry powder has a Chapelle reactivity of at least 0.7 g per 1 gram.

17. Installation for the dehydroxylation treatment of aluminium silicate, characterised in that it includes a conduit (6) supplied with a hot gas stream (30) at a temperature of from 600 to 850°C, means for introducing a dry powder containing aluminium silicate into the conduit (6), and means (31) for transporting the dry powder in this conduit.

18. Installation according to Claim 17, characterised in that it comprises means (2) for comminuting a hydrated base paste containing aluminium silicate into fragments (23), a grinder-dryer (3) which disaggregates the fragments (23) of base paste by mechanical action in the presence of a hot gas (24) at a temperature of from 500°C to 800°C, and means (28, 8) for collecting a dry powder (26) downstream of the grinder-dryer.

19. Installation according to Claim 18, characterised in that the grinder-dryer (2) includes a grinding zone with grinding components (18, 21, 22) and passages for the hot gas in the said grinding zone.

20. Installation according to Claim 19, characterised in that the grinding components comprise at least two parallel discs (17, 19, 20) carrying fingers (18, 21, 22) projecting on their opposing surfaces, and in that the passages for the hot gas are the spaces between the fingers (18, 21, 22) of the discs.

21. Installation according to one of Claims 17 to 20, characterised in that it comprises separation means (4), such as a cyclone, at the outlet of the grinder-dryer (3).

22. Installation according to one of Claims 17 to 21, characterised in that it comprises means (5) for intermediate storage between the grinder-dryer (3) and the conduit (6).

23. Installation according to one of Claims 17 to 22, characterised in that the conduit (6) is supplied with hot gas (30) by a burner (31) whose flame is contained outside the conduit.

24. Installation according to one of Claims 17 to 23, characterised in that the conduit (6) is equipped with external heating means, such as electrical heating elements and/or a heating jacket (32).

25. Installation according to one of Claims 17 to 24, characterised in that it comprises, downstream, means for collecting powder by filtration (8).

26. Installation according to Claim 24, characterised in that the external heating means are constituted by electrical radiation or by gaseous or liquid combustion of a fuel.

27. Process for improving the kinetic of the pozzolanic reaction of aluminium silicate based material, wherein the aluminium based silicate material is subjected to a dehydroxylation treatment of aluminium silicate, in which particles containing aluminium silicate in the form of a dry powder are transported in a gas stream (30) at a temperature of from 600 to 850°C, for a time which is sufficient to achieve the desired degree of dehydroxylation.